

PROJECT NUMBER: 1902
PROJECT TITLE: Tobacco Microbiology
PROJECT LEADER: D. J. Ayers
WRITTEN BY: J. B. Jones
PERIOD COVERED: November, 1988

I. ART FILLER 12 WEEK STUDY

- A. **Objective:** To determine the effects of storage on the microbial concentration of ART filler material at 35°C/80% RH and 25°C/60% RH.
- B. **Results:** Bacterial counts showed no increases, over initial counts, for the data accumulated from experiments 1-5 after 12, 8, 8, 8, 4 weeks of storage, respectively. The mold counts did not exceed acceptable laboratory limits but the yeast counts exceeded acceptable laboratory limits (> 80 mold/yeast colonies per gram) (1) in all 5 experiments to date (2).
- C. **Plans:** Complete current study.
- D. **References:**
 1. Crockett, E. A. The Microbial Quality Improvement Program (MQIP) As Conducted in the OC Semi-Works Primary Facility. Special Report #87-155; 1987 December 21.
 2. Jones, J. Notebook No. 8590, pp. 73, 75, 77-80, 83-84, 87.

II. MONOPOTASSIUM CITRATE STORAGE STUDY

- A. **Objective:** To determine the effects of storage on the microbial load of monopotassium citrate at 25°C and 45°C.
- B. **Results:** No bacterial, mold, or yeast colonies have been detected to date in the sample at 25°C or 45°C. Samples were tested on a daily basis for the first week and on a weekly basis for the second week to date..
- C. **Plans:** Continue the testing.
- D. **Reference:**
 1. Gaines, O. Notebook No. 8690, pp. 78-79.

III. BACTOMETER CALIBRATION CURVES

- A. **Objective:** To generate calibration curves for determining the number of bacteria present in a sample using the Bactometer.
- B. **Results:** Data will be complete by the end of November for the Oriental tobacco calibration curve.

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C. Plans: Complete data collection for the completion of calibration curves for bright tobacco and a typical, full-flavored blend.

D. Reference:

1. Chadick, D. Notebook No. 8625, pp. 158-161.

IV. CTB AND BURLEY SPRAYED BURLEY STORAGE STUDY

A. Objective: To determine if the addition of class tobacco dust (CT) to the Regular Burley Spray (RBS) would enhance microbial development on the Burley Strip after 12 weeks of storage at 35°C with 80% RH.

B. Results: CTB and RBS sprayed Burley tobacco from Louisville and Stockton Street have been microbially examined after 8 weeks of storage. Bacterial, mold, and yeast counts are within laboratory limits to date.

C. Plans: Complete week 12 of storage.

D. Reference:

1. Chadick, D. Notebook No. 8625, pp. 133-138, 141-142, 149, 154.

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